



Atty. Dkt. No.	M#	Client Ref.
	307087	P-0395.010-US

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant:	SIMON <i>et al.</i>
Appln. No.:	10/724,402
Filing Date:	December 1, 2003
Examiner:	Unknown
Group Art Unit:	1753

Date: March 30, 2004

Page 1 of 3

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
P/L	AR	3,573,975	04/1971	Dhaka <i>et al.</i>	117	212	
	BR	3,648,587	03/1972	Stevens	95	44	
	CR	4,346,164	08/1982	Tabarelli <i>et al.</i>	430	311	
	DR	4,396,705	08/1983	Akeyama <i>et al.</i>	430	326	
	ER	4,480,910	11/1984	Takanashi <i>et al.</i>	355	30	
	FR	4,509,852	04/1985	Tabarelli <i>et al.</i>	355	30	
	GR	5,040,020	08/1991	Rauschenbach <i>et al.</i>	355	53	
	HR	5,121,256	06/1992	Corle <i>et al.</i>	359	664	
	IR	5,610,683	03/1997	Takahashi	355	53	
	JR	5,715,039	02/1998	Fukuda <i>et al.</i>	355	53	
	KR	5,825,043	10/1998	Suwa	250	548	
	LR	5,900,354	05/1999	Batchelder	430	395	
	MR	6,191,429	02/2001	Suwa	250	548	
P/L	NR	6,560,032	05/2003	Hatano	359	656	

FOREIGN PATENT DOCUMENTS

		Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
						Enclosed	No	Enclose	No
P/L	OR	WO 99/49504	09/1999	PCT	Fukami <i>et al.</i>	X		X	
	PR	EP 0023231	02/1981	Europe	Tabarelli <i>et al.</i>	X			
	QR	EP 0418427	03/1991	Europe	Miyake	X		X	
	RR	EP 1039511	09/2000	Europe	Murakimi <i>et al.</i>	X		X	
	SR	DD 224448	07/1985	German	Hesse <i>et al.</i>		X		
	TR	DD 242880	02/1987	German	Kuch		X		
	UR	FR 2474708	07/1981	France	Letellier		X		
	VR	JP 62-065326	03/1987	Japan	Moriuchi	X			
	WR	JP 62-121417	06/1987	Japan	Nakazawa	X			
P/L	XR	JP 63-157419	06/1988	Japan	Nakasuji	X			

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

P/L	YR	EP Search Report for EP 02258278.7 dated October 22, 2003							
	ZR	M. Switkes <i>et al.</i> , "Immersion Lithography at 157 nm", MIT Lincoln Lab, Orlando 2001-1, December 17, 2001							
	AAR	M. Switkes <i>et al.</i> , "Immersion Lithography at 157 nm", J. Vac. Sci. Technol. B., Vol. 19, No. 6, November/December 2001, pp. 2353-2356							
P/L	BBR	M. Switkes <i>et al.</i> , "Immersion Lithography: Optics for the 50 nm Node", 157 Anvers-1, September 4, 2002							

Examiner: *P/L K J* Date Considered: 12/9/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
To: U.S. Department of Commerce
(PW FORM PAT-1449)
Patent and Trademark Office

Atty.
Dkt. No.

M#

Client Ref.

307087

P-0395.010-US

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

Applicant: SIMON *et al.*

Appln. No.: 10/724,402

Filing Date: December 1, 2003

Examiner: Unknown

Group Art Unit: 1753

Date: March 30, 2004

Page

2

of

3

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
PK	AR	6,603,130	08/2003	Bisschops <i>et al.</i>	250	492.1	
	BR	6,633,365	10/2003	Suenaga	355	53	
	CR	2002/0041420	04/2002	Garner	359	212	
	DR	2002/0163629	11/2002	Switkes <i>et al.</i>	355	53	
	ER	2003/0123040	07/2003	Almogy	355	69	
PK	FR	2003/0174408	09/2003	Rostalski <i>et al.</i>	359	642	
	GR						
	HR						
	IR						
	JR						

FOREIGN PATENT DOCUMENTS

		Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
						Enclosed	No	Enclose	No
PK	KR	JP 04-305915	10/1992	Japan	Ozeki <i>et al.</i>	X			
	LR	JP 04-305917	10/1992	Japan	Ozeki <i>et al.</i>	X			
	MR	JP 06-124873	05/1994	Japan	Takahashi	X		X	
	NR	JP 07-220990	08/1995	Japan	Fukuda <i>et al.</i>	X			
	OR	JP 10-228661	08/1998	Japan	Kurokawa	X			
	PR	JP 10-255319	09/1998	Japan	Suenaga <i>et al.</i>	X			
	QR	JP 10-303114	11/1998	Japan	Suwa	X		X	
	RR	JP 10-340846	12/1998	Japan	Kudo	X		X	
	SR	JP 2001-091849	04/2001	Japan	Aizaki <i>et al.</i>	X			
	TR	JP 58-202448	11/1983	Japan	Kawamura <i>et al.</i>	X			
	UR	WO 2004/019128	03/2004	PCT	Omura <i>et al.</i>				
	VR	WO 03/077036	09/2003	PCT	Schuster	X			
PK	WR	JP 07-132262	05/1995	Japan	Hirakawa <i>et al.</i>	X			
	XR								
	YR								
	ZR								

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

PK	AAR	B.J. Lin, "Drivers, Prospects and Challenges for Immersion Lithography", TSMC, Inc., September 2002			
PK	BBR	B.J. Lin, "Proximity Printing Through Liquid", IBM Technical Disclosure Bulletin, Vol.20, No. 11B, April 1978, p. 4997			

Examiner

Date Considered:

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 (modified)
To: U.S. Department of Commerce
(PW FORM PAT-1449)
Patent and Trademark Office

Atty.
Dkt. No.

M#

Client Ref.

307087

P-0395.010-US

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant: SIMON *et al.*

Appln. No.: 10/724,402

Filing Date: December 1, 2003

Examiner: Unknown

Group Art Unit: 1753

Date: March 30, 2004

Page

3

of

3

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
AR						

FOREIGN PATENT DOCUMENTS

Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract	Translation Readily Available
BR					

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

CR	B.J. Lin, "The Paths To Subhalf-Micrometer Optical Lithography", SPIE Vol. 922, Optical/Laser Microlithography (1988), pp. 256-269				
DR	G.W.W. Stevens, "Reduction of Waste Resulting from Mask Defects", Solid State Technology, August 1978, Vol.21 008, pp. 68-72				
ER	S. Owa <i>et al.</i> , "Immersion Lithography; its potential performance and issues", SPIE Microlithography 2003, 5040-186, February 27, 2003				
FR	S. Owa <i>et al.</i> , "Advantage and Feasibility of Immersion Lithography", Proc. SPIE 5040 (2003)				
GR	Nikon Precision Europe GmbH, "Investor Relations - Nikon's Real Solutions", May 15, 2003				
HR	H. Kawata <i>et al.</i> , "Optical Projection Lithography using Lenses with Numerical Apertures Greater than Unity", Microelectronic Engineering 9 (1989), pp. 31-36				
IR	J.A. Hoffnagle <i>et al.</i> , "Liquid Immersion Deep-Ultraviolet Interferometric Lithography", J. Vac. Sci. Technol. B., Vol. 17, No. 6, November/December 1999, pp. 3306-3309				
JR	B.W. Smith <i>et al.</i> , "Immersion Optical Lithography at 193nm", FUTURE FAB International, Vol. 15, July 11, 2003				
KR	H. Kawata <i>et al.</i> , "Fabrication of 0.2µm Fine Patterns Using Optical Projection Lithography with an Oil Immersion Lens", Jpn. J. Appl. Phys. Vol. 31 (1992), pp. 4174-4177				
LR	G. Owen <i>et al.</i> , "1/8µm Optical Lithography", J. Vac. Sci. Technol. B., Vol. 10, No. 6, November/December 1992, pp. 3032-3036				
MR	Cerrina <i>et al.</i> , "Biological lithography: development of a maskless microarray synthesizer for DNA chips", Microelectronic Engineering 61-62:33-40 (2002)				
NR	Singh-Gasson <i>et al.</i> , "Maskless fabrication of light-directed oligonucleotide microarrays using a digital micromirror array", Nature Biotechnology 17:974-978 (1999)				
OR	S. Owa <i>et al.</i> , "Update on 193nm Immersion exposure tool", Litho Forum, International SEMATECH, Los Angeles, January 27-29, 2004, Slide Nos. 1-51				
PR	H. Hata, "The Development of Immersion Exposure Tools", Litho Forum, International SEMATECH, Los Angeles, January 27-29, 2004, Slide Nos. 1-22				
QR	T. Matsuyama <i>et al.</i> , "Nikon Projection Lens Update", SPIE Microlithography 2004, 5377-65, March, 2004				
RR	"Depth-of-Focus Enhancement Using High Refractive Index Layer on the Imaging Layer", IBM Technical Disclosure Bulletin, Vol. 27, No. 11, April 1985, p. 6521				
SR	A. Suzuki, "Lithography Advances on Multiple Fronts", EEdesign, EE Times, January 5, 2004				
TR					

Examiner

Date Considered:

12/9/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



Atty.
Dkt. No.

M#

Client Ref.

307087

P-0395.010-US

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Applicant: SIMON et al.

Appl. No.: 10/724,402

Filing Date: December 1, 2003

Date: May 6, 2004

Page

1

of

1

Examiner: Unknown

Group Art Unit: 1753

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
7u	AR	5,143,854	09/1992	PIRRUNG et al.	436	518	
7u	BR	6,040,193	03/2000	WINKLER et al.	436	180	
	CR						
	DR						
	ER						
	FR						
	GR						
	HR						
	IR						
	JR						
	KR						
	LR						
	MR						
	NR						

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name		English Abstract	Translation Readily Available
						Enclosed	No
	OR						
	PR						
	QR						
	RR						
	SR						
	TR						
	UR						
	VR						
	WR						

OTHER (Including in this order: Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

7u	XR	European Search Report for EP 03257496.4					
	YR						
	ZR						
	AAR						
	BBR						
	CCR						

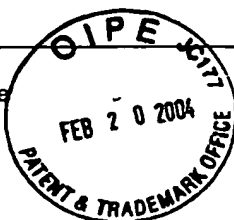
Examiner

[Signature]

Date Considered:

12/9/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



Atty.
Dkt. No.

M#

Client Ref.

081468

0307087

P-0395.010-US

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant: Klaus SIMON et al.

Appln. No.: 10/724,402

Filing Date: December 1, 2003

Date: February 20, 2004

Page

1

of

1

Examiner: Unassigned

Group Art Unit: Unassigned

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
<i>ML</i>	AR 2004/0000627A1	01/01/2004	Karl-Heinz SCHUSTER			
<i>ML</i>	BR 6,600,547	07/29/2003	WATSON et al.			
<i>ML</i>	CR 2004/0021844 A1	02/05/2004	Yutaka SUENAGA			
	DR					
	ER					
	FR					
	GR					
	HR					
	IR					
	JR					
	KR					
	LR					
	MR					
	NR					

FOREIGN PATENT DOCUMENTS

		Document Number	Date MM/YYYY	Country	Inventor Name		Abstract		Readily Available	
							Enclosed	No	Enclose	No
	OR									
	PR									
	QR									
	RR									
	SR									
	TR									
	UR									
	VR									
	WR									
	XR									

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

<i>2h</i>	YR	H. Hogan, "New Semiconductor Lithography Makes a Splash", PHOTONICS SPECTRA, Photonics TechnologyWorld, October 2003 Edition, pgs. 1-3			
<i>2h</i>	ZR	S. Owa and N. Nagasaka, "Potential Performance and Feasibility of Immersion Lithography", NGL Workshop 2003, July 10, 2003, Slide Nos. 1-33.			
	AAR				
	BBR				
	CCR				
	DDR				

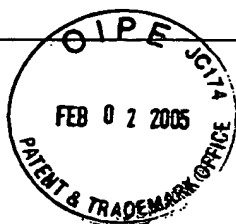
Examiner

Pete B. Jones

Date Considered:

12/9/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



Atty. Dkt. No.	M#	Client Ref.
	0307087	P-0395.010-US

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant: SIMON et al.	
Appln. No.: 10/724,402	
Filing Date: December 1, 2003	
Examiner: Unknown	Group Art Unit: 1753

Date: February 2, 2005 Page 1 of 2

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
PK	AR 4,390,273	06/1983	LOEBACH et al.	355	125	
	BR 6,236,634 B1	05/2001	LEE et al.	369	112	
	CR 2002/0020821 A1	02/2002	VAN SANTEN et al.	250	492	
	DR 2004/0075895 A1	04/2004	LIN	359	380	
	ER 2004/0109237 A1	06/2004	EPPLÉ et al.			
	FR 2004/0119954	06/2004	KAWASHIMA et al.	355	30	
PK	GR 2004/0125351	07/2004	KRAUTSCHIK	355	53	
	HR					
	IR					
	JR					

FOREIGN PATENT DOCUMENTS

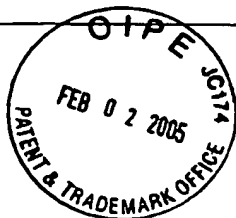
	Document Number	Date MM/YYYY	Country	Inventor Name		English Abstract		Translation Readily Available	
						Enclosed	No	Enclose	No
PK	KR WO 03/077037	09/2003	PCT	ROSTALSKI et al.		X			X
	LR DD 206 607	02/1984	GERMANY	WESTPHAL et al.			X		
	MR DD 221 563	04/1985	GERMANY	PFORR et al.			X		
	NR JP 11-176727	07/1999	JAPAN	SHIRAISHI		X			
PK	OR JP 2000-058436	02/2000	JAPAN	FUJISHIMA et al.		X			
	PR								
	QR								
	RR								
	SR								

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

PK	TR	B. LIN, "The k_3 coefficient in nonparaxial MNA scaling equations for resolution, depth of focus, and immersion lithography, <i>J. Microlith., Microfab., Microsyst.</i> 1(1):7-12 (2002).			
	UR				
	VR				
	WR				
	XR				
	YR				
	ZR				

Examiner *Patricia B. Jones* Date Considered: 12/9/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



Atty. Dkt. No.	M#	Client Ref.
	0307087	P-0395.010-US

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Applicant: SIMON et al.
Appln. No.: 10/724,402
Filing Date: December 1, 2003
Examiner: Unknown Group Art Unit: 1753

Date: February 2, 2005 Page 2 Of 2

U.S. PATENT DOCUMENTS

Examiner's Initials*	Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AAR					
	BBR					

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	English Abstract		Translation Readily Available	
					Encl osed	No	Encl osed	No
	CCR WO 2004/053950 A1	06/2004	PCT	OWA	X			
	DDR WO 2004/053951 A1	06/2004	PCT	MAGOME et al.	X			
	EER WO 2004/053952 A1	06/2004	PCT	MAGOME et al.	X			
	FFR WO 2004/053953 A1	06/2004	PCT	NEI et al.	X			
	GGR WO 2004/053954 A1	06/2004	PCT	NEI et al.	X			
	HHR WO 2004/053955 A1	06/2004	PCT	HIRUKAWA et al.	X			
	IIR WO 2004/053956 A1	06/2004	PCT	NAGASAKA et al.	X			
	JJR WO 2004/053957 A1	06/2004	PCT	HIDAKA et al.	X			
	KKR WO 2004/053958 A1	06/2004	PCT	MIZUTANI et al.	X			
	LLR WO 2004/053959 A1	06/2004	PCT	SHIRAI	X			
	MMR WO 2004/053596 A2	06/2004	PCT	GRAUPNER	X			
	NNR WO 2004/055803 A1	07/2004	PCT	VAN SANTEN	X		X	
	OOR WO 2004/057589 A1	07/2004	PCT	NEIJZEN et al.	X		X	
	PPR WO 2004/057590 A1	07/2004	PCT	VAN SANTEN et al.	X		X	
	QQR JP 2004-193252	07/2004	Japan	Not Available	X			

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

RRR			
SSR			
TTR			
UUR			
VVR			
WWR			
XXR			

*references
not
provided.*

Examiner Rto RR JK Date Considered: 12/9/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.